

On page 6, delete the paragraph that begins on line 6 and ends on page 6, line 13, and then replace the deleted paragraph with the following replacement paragraph:

Ring 214 is formed of a dielectric material and functions to prevent solder material 216 from making contact with the perimeter of contact pad 210 and the portion of the ceramic material immediately surrounding contact pad 210. Ring 214 may either be formed on top (See FIG. 2A) or be partially embedded within (See FIG. 5) surface 212. Ring 214 increases the structural integrity to the LTCC module after the module has been attached to a printed circuit board in that the thermal cycle fatigue life is increased. In some cases the fatigue life is increased at least five fold over LTCC modules which lack structures such as rings 214. In this embodiment, ring 214 is formed of a glass dielectric ink. Dupont glass dielectric ink #5682, as well as other suitable materials, may be used.

IN THE CLAIMS:

Please **CANCEL** claims 13 and 20-24 without prejudice or disclaimer.

Please **REWRITE** claim 8 as follows:

8. (Once Amended) A ceramic circuit structure having a plurality of ceramic layers and at least one electronic component embedded within the plurality of ceramic layers, wherein a first one of the ceramic layers comprises:

a through-hole that passes through the first ceramic layer, the through-hole being filled with a first electrically conductive material, which forms a via;

a catch pad formed at one end of the via;

a contact pad embedded within a surface of the first ceramic layer such that a surface of the contact pad is flush with the surface of the first ceramic layer, the contact pad formed from a second electrically conductive material that is different from the first electrically conductive material; and

a barrier cap formed in contact with and between the catch pad and the contact pad such that the barrier cap is encapsulated within the first ceramic layer, the barrier cap being formed from a third electrically conductive material that is different from the first and second electrically conductive materials.

Please **ADD** claims 25-27 as follows:

25. (New) A ceramic circuit structure as recited in claim 1, further comprising:
a solder ball formed within the dielectric ring.
26. (New) A ceramic circuit structure as recited in claim 8, further comprising:
a solder ball formed within the dielectric ring.
27. (New) A ceramic circuit structure as recited in claim 15, further comprising:
a solder ball formed within the dielectric ring.